

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

List of Claims:

Claim 1. (Currently Amended) A lamp driving apparatus of a liquid crystal display, comprising:

a plurality of lamps; and

an inverter block having a plurality of ~~inverters that supply~~ transformers that convert a voltage from a voltage source into a drive current and supply the current to the plurality of lamps wherein a primary winding and a secondary winding of the transformers that supply current to the odd-numbered lamps are wound in the same direction and a primary winding and a secondary winding of the transformers that supply current to the even-numbered lamps are wound in the opposite direction from each other such that the odd-numbered adjacent lamps have a different phase from the even-numbered lamps one another.

Claim 2. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 1, further comprising a current detector block that detects the lamp drive current supplied to each of the plurality of lamps ~~in~~ from the inverter block.

Claim 3. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 2, further comprising an integrated circuit substrate on which the inverter block and current detector block are mounted, ~~and the integrated circuit substrate is being folded to~~ towards a rear surface of the liquid crystal display.

Claim 4. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 1, further comprising:

a first common line commonly connected to a second electrode terminal of each odd-numbered ~~lamps~~ lamp of the plurality of lamps;

a second common line commonly connected to ~~the~~ a second electrode terminal of each even-numbered ~~lamps~~ lamp of the plurality of lamps; and

a ground voltage line connecting ~~each~~ of the first common line and the second common line to a ground voltage source.

Claim 5. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 2, wherein ~~the each of the inverters~~ the inverter block further comprises:

~~a transformer that converts a voltage from a voltage source into the lamp driving current and supplies the lamp driving current to a first electrode terminal of each of the plurality of lamps;~~

a plurality of switching ~~circuit~~ circuits that ~~switches~~ switch the voltage into the plurality of transformers ~~transformer~~; and

a plurality of controllers ~~controller~~ controlling the ~~switch~~ switching circuits ~~circuit~~ with reference to a feedback signal from the current detector block.

Claim 6. (Canceled)

Claim 7. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 5, wherein the current detector block is connected to the secondary ~~winding~~ windings of the transformers ~~transformer~~.

Claim 8. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 5, wherein the current detector block includes a plurality of current detectors, each current detector within the current detector block comprising ~~comprises~~:

a resistor connected between the secondary winding of ~~the~~ a transformer and a ground voltage source;

a first diode connected between ~~the~~ a control block and a first node between ~~a~~ the secondary winding of the transformer and the resistor;

a variable resistor connected between the ground voltage source and a node between the first diode and the control ~~means~~ block ; and

a capacitor connected in parallel to the variable resistor.

Claim 9. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 8, wherein ~~the~~ each of the current detectors in the current detector block further comprises:

a second diode connected between the ground voltage source and the node between the first node and the first diode.

Claim 10. (Currently Amended) A lamp driving apparatus of a liquid crystal display, comprising:

a plurality of lamps including a plurality of odd-numbered lamps and a plurality of even-numbered lamps; and

an inverter block having a first plurality of inverters wherein a plurality of inverters that transformers that convert a voltage from a voltage source into a drive current and supply the drive current to the plurality of lamps, wherein the plurality of transformers that supply a the drive current to the even-numbered lamps have a first phase and the inverters plurality of transformers that supply a the drive current to the odd-numbered lamps have a phase opposite the first phase; and

wherein a primary winding and a secondary winding of the transformers that supply current to the odd-numbered lamps are wound in the same direction and a primary winding and a secondary winding of the transformers that supply current to the even-numbered lamps are wound in the opposite direction from each other.

Claim 11. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 10, further comprising a current detector block that detects the lamp drive current supplied to each of the plurality of lamps ~~in~~ from the inverter block.

Claim 12. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 11, further comprising an integrated circuit substrate on which the inverter block and current detector block are mounted, ~~and~~ the integrated circuit substrate being is folded ~~to~~ towards a rear surface of the liquid crystal display.

Claim 13. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 10, further comprising:

a first common line commonly connected to a second electrode terminal of each odd-numbered ~~lamps~~ lamp of the plurality of lamps;

a second common line commonly connected to ~~the~~ a second electrode terminal of each even-numbered ~~lamps~~ lamp of the plurality of lamps; and

a ground voltage line connecting ~~each of the~~ first common line and the second common line to a ground voltage source.

Claim 14. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 11, wherein the inverter block ~~each of the inverters~~ comprises:

~~a transformer that converts a voltage from a voltage source into the lamp driving current and supplies the lamp driving current to a first electrode terminal of each of the plurality of lamps;~~

~~a plurality of switching circuits circuit that switch switches the voltage into the plurality of transformers~~ transformer; and

~~a plurality of controllers controller~~ controlling the ~~switch circuit~~ switching circuits with reference to a feedback signal from the current detector block.

Claim 15. (Canceled)

Claim 16. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 14, wherein the current detector block is connected to the secondary windings ~~winding~~ of the ~~transformers~~ transformer.

Claim 17. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 14, wherein each current detector in the current detector block comprises:

a resistor connected between ~~the~~ a secondary winding of the transformer and a ground voltage source;

a first diode connected between ~~the~~ a control block and a first node between ~~a~~ the secondary winding of the transformer and the resistor;

a variable resistor connected between the ground voltage source and a node between the first diode and the control ~~means~~ block ; and

a capacitor connected in parallel to the variable resistor.

Claim 18. (Currently Amended) The lamp driving apparatus of the liquid crystal display according to claim 17, wherein each current detector in the current detector block further comprises a second diode connected between the ground voltage source and the node between the first node and the first diode.